

In the Claims:

1. (Currently amended) An electrode material for electrical discharge machining made of a W-Cu alloy containing at least 40% by weight of W, at most 15% by weight of one of an additional element and a compound thereof, and a balance of [[Eu,]] Cu and from 0 to 10% by weight of Ni, containing, as one of said additional element and said compound thereof, at most 10% by weight of at least one selected from an alkali metal element, an alkaline-earth metal element and a rare-earth element, and an oxide, a hydroxide, a nitride, a boride and a sulfide of said elements in particles having a mean particle diameter of less than 3 $\mu$ m.
2. (Currently amended) The electrode material for electrical discharge machining according to claim 1, wherein ~~said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare earth element, and said oxide, said hydroxide, said nitride, said boride and said sulfide of said elements in particles has a mean particle diameter of said particle is~~ less than 1 $\mu$ m.
3. (Currently amended) The electrode material for electrical discharge machining according to claim 1, wherein ~~said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare earth element,~~

5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in particles [[has]] have  
7 a mean interparticle spacing of at most 10 $\mu$ m.

1 4. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 1, wherein said at  
3 least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles  
7 ~~exists in~~ is mixed into particles of the Cu.

1 5. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 1, wherein said at  
3 least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles ~~exists~~  
7 ~~in some of W particles.~~ is mixed into some particles of  
8 the W.

1 6. (Original) The electrode material for electrical discharge  
2 machining according to claim 1, wherein said alkali metal  
3 element, said alkaline-earth metal element and said  
4 rare-earth element, and said oxide, said hydroxide, said  
5 nitride, said boride and said sulfide of said elements are

6 at least one of Ba, Nd, Ce, Y, Ca and K, and an oxide and  
7 a hydroxide thereof.

1 7. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 1, wherein said W  
3 ~~contains~~ is contained in W particles that include at least  
4 30% by weight of particles having a particle diameter of at  
5 most 1 $\mu$ m with respect to all of the W particles.

1 8. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 1, ~~wherein at most~~  
3 ~~10% by weight of Ni is further contained instead of a~~  
4 ~~portion of said Cu. containing a positive amount of~~  
5 said Ni.

1 9. (Original) A method of manufacturing the electrode material  
2 for electrical discharge machining recited in claim 1,  
3 using a source powder containing a Cu powder and/or a W  
4 powder, and a powder of at least one selected from an  
5 alkali metal element, an alkaline-earth metal element and  
6 a rare-earth element, and an oxide, a hydroxide, a nitride,  
7 a boride and a sulfide of said elements, said source powder  
8 being mixed by using one of a mechanical alloying method,  
9 a method of using a fine source powder, and a  
10 coprecipitation method.

1 10. (Currently amended) An electrode material for electrical  
2 discharge machining made of a W-Cu alloy containing at  
3 least 40% by weight of W, at most 15% by weight of one of  
4 an additional element and a compound thereof, and a balance  
5 of [[Eu,]] Cu and from 0 to 10% by weight of Ni,  
6 containing, as one of said additional element and said  
7 compound thereof, at most 10% by weight of at least one  
8 selected from an alkali metal element, an alkaline-earth  
9 metal element and a rare-earth element, and an oxide, a  
10 hydroxide, a nitride, a boride and a sulfide of said  
11 elements in particles having a mean interparticle spacing  
12 of at most [[20μm.]] 14μm.

1 11. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 10, wherein said  
3 ~~at least one selected from said alkali metal element, said~~  
4 ~~alkaline-earth metal element and said rare-earth element,~~  
5 ~~and said oxide, said hydroxide, said nitride, said boride~~  
6 ~~and said sulfide of said elements in particles [[has]] have~~  
7 a mean particle diameter of less than 1μm.

1 12. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 10, wherein said  
3 ~~at least one selected from said alkali metal element, said~~  
4 ~~alkaline-earth metal element and said rare-earth element,~~  
5 ~~and said oxide, said hydroxide, said nitride, said boride~~

6 and said sulfide of said elements in particles has a mean  
7 interparticle spacing of said particles is at most 10 $\mu$ m.

1 13. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 10, wherein said at  
3 least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles  
7 ~~exists in~~ is mixed into particles of the Cu.

1 14. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 10, wherein said at  
3 least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles ~~exists~~  
7 ~~in some of W particles.~~ is mixed into some particles of  
8 the W.

1 15. (Original) The electrode material for electrical discharge  
2 machining according to claim 10, wherein said alkali metal  
3 element, said alkaline-earth metal element and said  
4 rare-earth element, and said oxide, said hydroxide, said  
5 nitride, said boride and said sulfide of said elements are  
6 at least one of Ba, Nd, Ce, Y, Ca and K, and an oxide and  
7 a hydroxide thereof.

1 16. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 10, wherein said w  
3 contains is contained in W particles that include at least  
4 30% by weight of particles having a particle diameter of at  
5 most 1 $\mu$ m with respect to all of the W particles.

1 17. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 10, wherein ~~at most~~  
3 ~~10% by weight of Ni is further contained instead of a~~  
4 ~~portion of said Cu. containing a positive amount of~~  
5 said Ni.

1 18. (Original) A method of manufacturing the electrode material  
2 for electrical discharge machining recited in claim 10,  
3 using a source powder containing a Cu powder and/or a W  
4 powder, and a powder of at least one selected from an  
5 alkali metal element, an alkaline-earth metal element and  
6 a rare-earth element, and an oxide, a hydroxide, a nitride,  
7 a boride and a sulfide of said elements, said source powder  
8 being mixed by using one of a mechanical alloying method,  
9 a method of using a fine source powder, and a  
10 coprecipitation method.

1 19. (Currently amended) An electrode material for electrical  
2 discharge machining made of a W-Cu alloy containing at  
3 least 40% by weight of W, at most 15% by weight of one of

4 an additional element and a compound thereof, and a balance  
5 of [[Eu-]] Cu and from 0 to 10% by weight of Ni,  
6 containing, as one of said additional element and said  
7 compound thereof, at most 10% by weight of at least one  
8 selected from an alkali metal element, an alkaline-earth  
9 metal element and a rare-earth element, and an oxide, a  
10 hydroxide, a nitride, a boride and a sulfide of said  
11 elements in particles having a mean particle diameter of  
12 less than 3 $\mu$ m and a mean interparticle spacing of at most  
13 [[20 $\mu$ m-]] 14 $\mu$ m.

1 20. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 19, wherein said  
3 ~~at least one selected from said alkali metal element, said~~  
4 ~~alkaline-earth metal element and said rare-earth element,~~  
5 ~~and said oxide, said hydroxide, said nitride, said boride~~  
6 ~~and said sulfide of said elements in particles has a mean~~  
7 ~~particle diameter of said particles is less than 1 $\mu$ m.~~

1 21. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 19, wherein said  
3 ~~at least one selected from said alkali metal element, said~~  
4 ~~alkaline-earth metal element and said rare-earth element,~~  
5 ~~and said oxide, said hydroxide, said nitride, said boride~~  
6 ~~and said sulfide of said elements in particles has a mean~~  
7 ~~interparticle spacing of said particles is at most 10 $\mu$ m.~~

1 22. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 19, wherein said at  
3 least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles  
7 ~~exists in~~ is mixed into particles of the Cu.

1 23. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 19, wherein said at  
3 least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles ~~exists~~  
7 ~~in some of W particles.~~ is mixed into some particles of  
8 the W.

1 24. (Original) The electrode material for electrical discharge  
2 machining according to claim 19, wherein said alkali metal  
3 element, said alkaline-earth metal element and said  
4 rare-earth element, and said oxide, said hydroxide, said  
5 nitride, said boride and said sulfide of said elements are  
6 at least one of Ba, Nd, Ce, Y, Ca and K, and an oxide and  
7 a hydroxide thereof.

1 25. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 19, wherein said W

3        contains is contained in W particles that include at least  
4        30% by weight of particles having a particle diameter of at  
5        most 1 $\mu$ m with respect to all of the W particles.

1        26. (Currently amended) The electrode material for electrical  
2        discharge machining according to claim 19, ~~wherein at most~~  
3        ~~10% by weight of Ni is further contained instead of a~~  
4        ~~portion of said Cu. containing a positive amount of~~  
5        said Ni.

1        27. (Original) A method of manufacturing the electrode material  
2        for electrical discharge machining recited in claim 19,  
3        using a source powder containing a Cu powder and/or a W  
4        powder, and a powder of at least one selected from an  
5        alkali metal element, an alkaline-earth metal element and  
6        a rare-earth element, and an oxide, a hydroxide, a nitride,  
7        a boride and a sulfide of said elements, said source powder  
8        being mixed by using one of a mechanical alloying method,  
9        a method of using a fine source powder, and a  
10      coprecipitation method.

1        28. (Currently amended) An electrode material for electrical  
2        discharge machining made of a W-Cu alloy containing at  
3        least 40% by weight of W, at most 15% by weight of one of  
4        an additional element and a compound thereof, and a balance  
5        of [[Cu,]] Cu and from 0 to 10% by weight of Ni,  
6        containing, as one of said additional element and said

7 compound thereof, at most 10% by weight of at least one  
8 selected from an alkali metal element, an alkaline-earth  
9 metal element and a rare-earth element, and an oxide, a  
10 hydroxide, a nitride, a boride and a sulfide of said  
11 elements in particles, wherein a content of said particles  
12 having a particle diameter of at most  $3\mu\text{m}$  is at least 0.3%  
13 by weight with respect to the entire alloy.

1 29. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 28, containing said  
3 at least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles,  
7 wherein [[ $\alpha$ ]] said content of said particles having [[ $\alpha$ ]]  
8 said particle diameter of at most  $3\mu\text{m}$  is at least 0.6% by  
9 weight with respect to the entire alloy.

1 30. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 28, containing said  
3 at least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles,  
7 wherein a content of said particles having a particle  
8 diameter of at most  $1\mu\text{m}$  is at least 0.3% by weight with  
9 respect to the entire alloy.

1 31. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 28, wherein said at  
3 least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles  
7 ~~exists in~~ is mixed into particles of the Cu.

1 32. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 28, wherein said at  
3 least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles ~~exists~~  
7 ~~in some of W particles.~~ is mixed into some particles of  
8 the W.

1 33. (Original) The electrode material for electrical discharge  
2 machining according to claim 28, wherein said alkali metal  
3 element, said alkaline-earth metal element and said  
4 rare-earth element, and said oxide, said hydroxide, said  
5 nitride, said boride and said sulfide of said elements are  
6 at least one of Ba, Nd, Ce, Y, Ca and K, and an oxide and  
7 a hydroxide thereof.

1 34. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 28, wherein said W  
3 ~~contains~~ is contained in W particles that include at least  
4 30% by weight of particles having a particle diameter of at  
5 most 1 $\mu$ m with respect to all of the W particles.

1 35. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 28, ~~wherein at most~~  
3 ~~10% by weight of Ni is further contained instead of a~~  
4 ~~portion of said Cu~~ containing a positive amount of  
5 said Ni.

1 36. (Original) A method of manufacturing the electrode material  
2 for electrical discharge machining recited in claim 28,  
3 using a source powder containing a Cu powder and/or a W  
4 powder, and a powder of at least one selected from an  
5 alkali metal element, an alkaline-earth metal element and  
6 a rare-earth element, and an oxide, a hydroxide, a nitride,  
7 a boride and a sulfide of said elements, said source powder  
8 being mixed by using one of a mechanical alloying method,  
9 a method of using a fine source powder, and a  
10 coprecipitation method.

1 37. (Currently amended) An electrode material for electrical  
2 discharge machining made of a W-Cu alloy containing at  
3 least 40% by weight of W, at most 15% by weight of one of  
4 an additional element and a compound thereof, and a balance

5 of [[Cu,]] Cu and from 0 to 10% by weight of Ni,  
6 containing, as one of said additional element and said  
7 compound thereof, at most 10% by weight of at least one  
8 selected from an alkali metal element, an alkaline-earth  
9 metal element and a rare-earth element, and an oxide, a  
10 hydroxide, a nitride, a boride and a sulfide of said  
11 elements in particles, wherein a content of said particles  
12 having an interparticle spacing of at most [[20 $\mu$ m]] 14 $\mu$ m is  
13 at least 0.3% by weight with respect to the entire alloy.

1 38. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 37, containing said  
3 at least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles,  
7 wherein a content of said particles having an interparticle  
8 spacing of at most 10 $\mu$ m is at least 0.3% by weight with  
9 respect to the entire alloy.

1 39. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 37, containing said  
3 at least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles,  
7 wherein a content of said particles having an interparticle

8 spacing of at most 10 $\mu$ m is at least 0.7% by weight with  
9 respect to the entire alloy.

1 40. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 37, wherein said at  
3 least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles  
7 ~~exists in~~ is mixed into particles of the Cu.

1 41. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 37, wherein said at  
3 least one selected from said alkali metal element, said  
4 alkaline-earth metal element and said rare-earth element,  
5 and said oxide, said hydroxide, said nitride, said boride  
6 and said sulfide of said elements in said particles ~~exists~~  
7 ~~in some of W particles.~~ is mixed into some particles of  
8 the W.

1 42. (Original) The electrode material for electrical discharge  
2 machining according to claim 37, wherein said alkali metal  
3 element, said alkaline-earth metal element and said  
4 rare-earth element, and said oxide, said hydroxide, said  
5 nitride, said boride and said sulfide of said elements are  
6 at least one of Ba, Nd, Ce, Y, Ca and K, and an oxide and  
7 a hydroxide thereof.

1 43. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 37, wherein said W  
3 ~~contains~~ is contained in W particles that include at least  
4 30% by weight of particles having a particle diameter of at  
5 most 1 $\mu$ m with respect to all of the W particles.

1 44. (Currently amended) The electrode material for electrical  
2 discharge machining according to claim 37, wherein ~~at most~~  
3 ~~10% by weight of Ni is further contained instead of a~~  
4 ~~portion of said Cu. containing a positive amount of~~  
5 said Ni.

1 45. (Original) A method of manufacturing the electrode material  
2 for electrical discharge machining recited in claim 37,  
3 using a source powder containing a Cu powder and/or a W  
4 powder, and a powder of at least one selected from an  
5 alkali metal element, an alkaline-earth metal element and  
6 a rare-earth element, and an oxide, a hydroxide, a nitride,  
7 a boride and a sulfide of said elements, said source powder  
8 being mixed by using one of a mechanical alloying method,  
9 a method of using a fine source powder, and a  
10 coprecipitation method.

1 46. (New) The electrode material for electrical discharge  
2 machining according to claim 1, wherein said W-Cu alloy  
3 contains 0% by weight of Ni.

1 47. (New) The electrode material for electrical discharge  
2 machining according to claim 1, wherein said W-Cu alloy  
3 consists of said W, said one of said additional element and  
4 said compound thereof, and said Cu.

1 48. (New) The electrode material for electrical discharge  
2 machining according to claim 10, wherein said W-Cu alloy  
3 contains 0% by weight of Ni.

1 49. (New) The electrode material for electrical discharge  
2 machining according to claim 10, wherein said W-Cu alloy  
3 consists of said W, said one of said additional element and  
4 said compound thereof, and said Cu.

1 50. (New) The electrode material for electrical discharge  
2 machining according to claim 19, wherein said W-Cu alloy  
3 contains 0% by weight of Ni.

1 51. (New) The electrode material for electrical discharge  
2 machining according to claim 19, wherein said W-Cu alloy  
3 consists of said W, said one of said additional element and  
4 said compound thereof, and said Cu.

1 52. (New) The electrode material for electrical discharge  
2 machining according to claim 28, wherein said W-Cu alloy  
3 contains 0% by weight of Ni.

1 53. (New) The electrode material for electrical discharge  
2 machining according to claim 28, wherein said W-Cu alloy  
3 consists of said W, said one of said additional element and  
4 said compound thereof, and said Cu.

1 54. (New) The electrode material for electrical discharge  
2 machining according to claim 37, wherein said W-Cu alloy  
3 contains 0% by weight of Ni.

1 55. (New) The electrode material for electrical discharge  
2 machining according to claim 37, wherein said W-Cu alloy  
3 consists of said W, said one of said additional element and  
4 said compound thereof, and said Cu.

[RESPONSE CONTINUES ON NEXT PAGE]